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AUTHOR Taylor, Elizabeth; And Others
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ABSTRACT

This paper shows what research about student perceptions of lecture courses can indicate about student approaches to learning and the outcomes of learning. The amount that students will learn from a lecture course depends on: 1) student approach to learning, 2) perception of what is to be learned, and 3) level of information processing. It was concluded that research from the "inside" (student perceptions) evaluates the lecture course better than research from the "outside" (observation of teaching method) because the lecture course atmosphere does not facilitate negotiation of understanding. (CJ)

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Institute of Educational Technology
The Open University
Walton Hall
Milton Keynes MK7 6AA

Telephone (0908) 653546

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THE VALUE OF THE LECTURE: LOOKING FROM THE INSIDE

Elizabeth Taylor
Graham Gibbs
Alistair Morgan

Abstract

There are two broad ways of looking at the lecture: from the 'outside' (1st order perspective) and from the 'inside' (2nd order perspective). This paper argues that these two perspectives result in different research designs and also tells us different things about the value of the lecture.

Research studies on student learning, which take the 2nd order perspective, have provided valuable insights into students' approach to study and their learning outcome. These studies have implications for our evaluation of the lecture and point to a useful direction for future research on the lecture as a context for learning.

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Introduction

If we want to study the lecture in order to assess its' value as a teaching method there are two broad ways we can do it. The first is from the outside; the researcher looking at the lecture and describing what he sees. The second is from the inside where the world is described from the point of view of the 'actors' ie the students and teachers, in the situation. Marton (1978) has called these two perspectives 1st and 2nd order respectively and has pointed out that the two perspectives are autonomous in the sense that what can be seen from one perspective cannot be seen from the other.

The argument of this paper is that these two perspectives not only produce different research designs but they also tell us different things about the value of the lecture. Value is essentially to do with qualities and it is this very aspect with which research in the 2nd order perspective (from the inside) is primarily concerned to describe. By focussing on student learning from the perspective of the student, what is experienced in the lecture can be evaluated in terms of the quality of the learning for the student in that context.

Many studies on lecturing and evaluations of lecture courses have involved asking the students' opinion of the lecture. This is <u>not</u> what we mean by 'looking from the inside'. These studies are essentially quantitative in nature ie finding out how many students thought - so and so - about the lecture. But to say, for example, that 60% of students prefer small group teaching to lecturing or that 4 out of 5 students rated a particular lecture as 'fairly useful', tells us very little about the value of the lecture and

AUG 2 5 1980

nothing about the quality of learning in that context.

The 2nd order perspective has been used in recent research on student learning and there are already many examples which illuminate the perspective and give descriptions which have implications for evaluating the lecture. In the first part of this paper we will discuss some of these research findings in order to show the type of descriptions they yield about the student approach to learning and what this implies for evaluating the lecture. In the second part we will look at how the research studies the outcome of learning, and the implications of this for the lecture will be discussed. We argue that research on lecturing should use this 2nd order perspective to illuminate the quality of learning in that context, in order to fully appreciate the lecture's value as a teaching method.

1. Approach to the Task

Much writing on the lecture as a teaching method has concentrated on the skills and styles of the lecturer, for example pacing, and on the skills of the student, for example, note-taking. It is assumed that these skills affect the efficiency of the lecture as a learning medium. Such work asks questions of fact, eg how many notes a student takes and how many marks he scores on a test afterwards. From this perspective we cannot see what the students experience of the lecture is. If we use the students perspective, however, we can see that the value of the lecture to the student depends on how they perceive their task in that context.

Research from this 2nd order perspective shows that the approach a students has in coming to a lecture will affect what he does in

that context. To assume that all students attending a lecture: are there for the same reason (see i); that they expect to learn the same thing (see ii) or that they process the information in the same way (see iii) is a false assumption. It is, nevertheless, one which is not questioned by research from the outside (1st order) perspective.

i) Orientation to the task:

Here we will consider two aspects of orientation. The first is a study by Miller and Parlett who used in-depth interviews with students to find out about their approach to examinations. They discovered differences between students in their strategy leading up to the examinations. They labelled the approaches Cue-seeking, Cue-conscious, and Cue-deaf. The students who were Cue-seeking actively sought clues and cues from the lecturers, during lectures and informally, about what was going to be in the exam. Cue-conscious students recognised that cues existed and spotted them when they could, but did not actively seek them. The Cue-deaf students did not recognise that cues existed and thought that success was dependent entirely on how hard you worked.

This distinction points to the different aims a student may have in coming to a lecture near the exams. For one, the important thing may be to get as much information down in note-form as possible, for the other, more strategic student, what is important is not how much, but which bits one takes down. Hints and tips from the lecturer about the exams, the general emphasis is perhaps what this student's notes will consist of rather than the content of the particular lectures' subject matter. What each student learns, will be different in kind as well as amount. The value to the

learner of a particular lecture will depend on his aim in going eg for the Cue-seeker, how many cues were given, rather than on the style or even the subject content of the lecture.

The present writer pointed to a different aspect of oritentation in a paper entitled "The student study contract" (Beaty 1978). Students can have very different ideas about the purpose of their education which can affect their attitude to different parts of the course.

> "Some students.....come with very well worked out ideas about what they want out of university experiences. For some this inevitably involves pre-arranged study patterns. However, sometimes interaction with other students makes this strategy problematic. Consider the following quote from a mature student:
>
> "I never came here looking for a grade - this is the thing you see it's only since I came that - that's another thing you see when you come as a mature student. I came here because I wanted to do the course - it was interest and knowledge, not really the degree. But the minute you come here you hear people talking about things like 2i's and 2ii's and immediately there's another pressure".....

The above quote shows that students can have different aims in being at university and this in turn affects their orientation to the course. In terms of thelecture we can imagine that this student might change from concentrating on the subject matter out of interest in it, to concentrating on the subject matter out of extrinsic interest in grades.

So orientation affects what a student attends to in the lecture. The lecture's value to a student and what he/she tries to learn may be different according to the orientation. To 'take it for granted' that all students wish to learn the same content for the same reasons and moreover, that these reasons are ones the lecturer would encourage, is a false assumption. Orientation is not only connected to what a student does in a lecture but also what he gets out of it. For this reason not only how much is learnt but also what is learnt will be different for different students.

ii) Perception of what is to be learned.

In the last section we saw that orientation is about what a student intends to do and why, and this is generally to do with a student's awareness of the possibilities available in the context. Research which looks at learning "from the inside" has resulted in descriptions of other influences on the way students approach learning tasks. For example Perry (1975) at Havard has described students' perceptions of what is to be learned in terms of their level of intellectual development. His scheme is based on open ended interviews with small numbers of students over many years. In this extract Perry briefly describes how students at three different stages of development would approach the same lecture:

> "Let us suppose that a lecturer announces that today he will consider three theories explanatory of - (whatever his topic may be). Student A has always taken it granted that knowledge consists of correct answers, that there is one right answer per problem, and that teachers explain these answers for students to learn. He therefore listens for the lecturer to state which theory he is to learn.

Student B makes the same general assumption but with an elaboration to th effect that eachers sometimes present problems and procedures, rather than answers "so that we can learn to find the right answers on our own". He therefore perceives the lecture as a kind of guessing fame in which he is to "figure out" which theory is correct, a game that is fair enough if the lecturer does not carry it so far as to hide things to obscurely.

Student C assumes that an answer can be called "right" only in the light of its context, and that contexts of "frames of reference" differ. He assumes that several interpretations of a poem, explanations of a historical development, or even theories of a class of events in physics may be legitimate "depending on how you look at it". Though he feels a little uneasy in such a kaleidodcopic world, he nonetheless supposes that the lecturer may be about to present three legitimate theories which can be examined for their internal coherance, their scope, their fit with various data, their predictive power, etc.

Whatever the lecturer then proceeds to do (in terms of his own assumptions and intent) these three students will make meaning of the experience in different ways which will involve different assessments of their own choices and responsibilities".

Clearly how the student perceives his task in studying is crucial to his learning from a lecture (or from any other resource). It is not obvious, however, what we can do to aid the student to develop to more sophisticated stages. This, according to Perry, is a perrilous process requiring courage, and inevitably takes time.

The perception a student has about what is to be learned however, determines how he constructs the knowledge presented to him.

The way in which the lecture is presented may confuse students who are not at the appropriate state of intellectual development. The perception of the function of the lecture is a key question which can only be addressed by adopting a 2nd order research perspective.

iii. Level of processing.

Research from the 2nd order perspective has also been concerned to describe how the students' process information ie what they do to learn. This has been described by Marton (1975) in terms of level of processing. He describes two distinct levels; deep and surface, which he discovered by asking students how they dealt with a text they had been asked to read.

Examples of a deep approach were where the students said they:

" "made connection between various points".
"kept the previous page in mind while reading the next".
"thought over the logic of the argument"...."

Examples of students taking a surface approach were as follows:

" "I was thinking about the facts that I was going to have all this.....I didn't think about what I was reading...."
"The whole time I was thinking 'now I must remember this' and 'now I must remember this'....."

A student taking a deep approach tries to understand the overall meaning of the text whereas a student taking a surface approach

concentrates on details and facts in the text. The deep/surface approaches are also associated with an active/passive distinction.

As one would expect, Marton reports that there is a very close relationship between the level of processing and the level of outcome of learning. Those who took a deep approach also grasped the meaning of the text whole those who took a surface approach did not.

By concentrating on the quality of learning the above research illuminates the differences between students in their approach to a task in a particular context. The important point again, is that these descriptions of student learning cannot be derived from research undertaken from the outside (1st order) perspective which concentrates on facts about what the student and teacher do in the lecture. But these very descriptions are vital to our understanding of the value of the lecture. Clearly if students are taking a surface approach to the lecture, all our attempts to reach a deep understanding of the subject matter will fail however carefully the lecturer has prepared his script and whatever style he uses. Similarly, although the notes a student takes may give us clues as to the outcome of learning in terms of understanding the lecture (I'm thinking here of a depth analysis of the notes not a simple count), merely trying to affect how a student takes notes, in terms of how, when, how much etc will not, per se, affect his approach to learning from the lecture.

2. Learning Outcomes

But what difference does the student's approach make to learning outcomes? In a university lecture course in Economics at Goteborg

the answer might have been none. Most of the students passed the examination. However, if one evaluates the learning outcomes from the inside perspective one gets quite a difference picture.

Dahlgren (1978) asked students after they completed the course, simple questions on economic concepts that were central to the teaching. One question was: "Can you define the concept 'opportunity cost'?

"The answers given to this question fall into two categories:

A. Opportunity cost means that the cost of a chosen alternative of using resources is expressed in terms of the revenue that an alternative would have given.

Thus, this category can also be said to contain the "right" answers to the question. Of the nineteen subjects, ten gave answers that belong to this category.

B. Opportunity cost is the cost for any of a number of possible alternative ways of achieving a specific goal.

In contrast to the A-answers, these answers reveal an absolute conception of opportunity cost. The A-answers are relative in the sense that the cost is actualized is the revenue of something else. In this sense, the B-answers can be said to be more primitive and concrete in comparison with the A-answers. Of the nineteen answers, eight contain this conception. One subject had no conception whatsoever about opportunity cost.

The other questions revealed similar differences in the students concepts where many students had wrong or at least unsophisticated concepts of basic economic principles."

As a conseuquence of this evaluation of the economics lecture course, various changes were made. The central change, from Dahlgren's point of view was that the lecturers became aware of students misconceptions or economics concepts and their teaching became centered around these concepts and misconceptions of them. This change could not possibly have resulted from a conventional "external evaluation".

There are two important implications of the above study and others like it: firstly, that in order to teach effectively lecturers need to know what misconceptions the students hold about basic concepts and secondly, given that leaners at any time may hold different formulations of particular concepts, what is necessary in teaching is not the transfer of pieces of knowledge but rather the facilitation of reconstruction of knowledge. (Rogers 1969).

The lecture is not usually a context within which teachers can find out about the students misconceptions. Nor is it a context, since students are usually passive, where construction of these concepts can be negotiated. The lecture may be able to challenge students' misconceptions about a particular subject matter, but the lecturer is not the most appropriate teaching method for encouraging the reconstruction of these concepts.

Even if one accepts the value of facilitating the reconstruction of knowledge through concept formation, one must go on to ask who's reconstruction is to be valued. The lines along which a particular student thinks may not be congruent with those of his teacher. The sense a student makes of new information is not necessarily predictable. What the students learn will depend on many things, not least of which may be the aim the student has in attending the lecture.

Not only how much is learnt but what is learnt is thus a question for research on lecturing. The value of the lecture must include value to the learner; even if this evaluation is different from the teacher's.

Conclusions

This paper has tried to show what research from the inside (2nd order) perspective can tell us about the student's approach to his learning and the outcome of his learning. It has tried to show the implications of this for the value of the lecture to students.

We have pointed out that what students get out of a lecture will depend on their approach to the task: their orientation, perception of what is to be learned, and level of processing. If we wish to influence what a student learns, we must take into account these aspects of the students approach in our teaching. This means that we must: understand the aims with which the students approach the task; consider which teaching methods will best enable us to reach the students at their own level of intellectual development; and consider ways in which we might encourage deep level processing. Here we are not suggesting manipulative measures, but rather appropriate design of the curriculum, particularly assessment. Fransson (1977) for example, has argued that exams encourage a surface approach through posing a threat to students. Clearly, lectures aimed at stimulating interest in the subject matter will surely fail if the assessment requires memorizing of many facts.

Secondly, we have shown that by adopting a perspective which looks 'from the inside', we can see the qualitative differences in learning outcome. We have argued that effective teaching requires

understanding by the teacher of the misconceptions held by the students. The lecture, particularly, is a context where student misconceptions are hidden and the passive nature of the audience would not appear to be a context which facilitates negotiation of understanding.

What we have from this 'inside' perspective so far, with regard to the lecture, are implications as to it's worth. We need now to use this perspective to go further and look particularly at the lecture as a context for learning.

References

Beaty, E (1978) 'The Student Contract' paper given at 4th International Conference on Higher Education, University of Lancaster.

Dahlgren, Lars Owe (1978) 'Qualitative Differences in Conceptions of Basic Principles in Economics - A contribution to discussion of the validity of examination results' Paper given at 4th International Conference on Higher Education, University of Lancaster.

Fransson, A (1977) 'On qualitative difference in learning: IV The effects of intrinsic motivation and extrinsic test anxiety on process and outcome' Br J educ Psychol, 47, pps 244-257

Marton, F (1975) 'What does it take to learn? in Entwhistle, N and Hounsell, D Eds How Students Learn Institute for Research and Development in Higher Education, University of Lancaster, 1975.

Marton, F (1978) 'Describing Conceptions of the World Around Us' Reports from the Institute of Education, University of Goteborg, No 66.

Miller, C and Parlett, M R (1974) 'Up to the Mark: A study of the examination game' London: Society for Research at Higher Education.

Rogers, C (1969) Freedom to Learn Merrill, Columbus, Ohio.

Perry, W G Jr. (1970) The Forms of Intellectual and Ethical Development in the College Years: A Scheme, Holt, Rivehant & Winston, New York.